

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application. Applicant has submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

Please cancel claim 5 without prejudice.

1, 8-13, 20-33, 35

(1) (Currently Amended) A method of inducing an antigen specific immune response in a subject, comprising:

administering to the subject in order to induce an antigen specific immune response an antigen and a combination of adjuvants, wherein the combination of adjuvants includes at least one oligonucleotide containing at least one unmethylated CpG dinucleotide and at least one non-nucleic acid adjuvant, wherein the non-nucleic acid adjuvant is an non-saponin immune stimulating adjuvant selected from the group consisting of PCPP polymer, derivatives of lipopolysaccharides, MPL, MDP, t-MDP, OM-174 and Leishmania elongation factor, wherein the combination of adjuvants is administered in an effective amount for inducing a synergistic adjuvant response, and wherein the oligonucleotide is 8-100 nucleotides in length and has at least one phosphate backbone modification.

2-4. (Cancelled)

5. (Cancelled Herewith).

6-7. (Cancelled).

(8) (Original) The method of claim 1, wherein the combination of adjuvants is administered with a priming dose of antigen.

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⑨ (Original) The method of claim 1, wherein the combination of adjuvants is administered with a boost dose of antigen.

⑩ (Original) The method of claim 8, wherein the subject is administered a boost dose of antigen and oligonucleotide containing at least one unmethylated CpG dinucleotide after the priming dose.

⑪ (Original) The method of claim 9, wherein the subject is administered a priming dose of antigen and oligonucleotide containing at least one unmethylated CpG dinucleotide before the boost dose.

⑫ (Original) The method of claim 1, wherein the oligonucleotide containing at least one unmethylated CpG dinucleotide has a sequence including at least the following formula:

5' X₁ X₂CGX₃ X₄ 3'

wherein C and G are unmethylated, wherein X₁X₂ and X₃X₄ are nucleotides.

⑬ (Original) The method of claim 12, wherein the 5' X₁ X₂CGX₃ X₄ 3' sequence is a non-palindromic sequence.

14-19. (Cancelled)

⑭ (Original) The method of claim 12, wherein X₁X₂ are nucleotides selected from the group consisting of: GpT, GpG, GpA, ApA, ApT, ApG, CpT, CpA, CpG, TpA, TpT, and TpG; and X₃X₄ are nucleotides selected from the group consisting of: TpT, CpT, ApT, TpG, ApG, CpG, TpC, ApC, CpC, TpA, ApA, and CpA.

⑮ (Original) The method of claim 12, wherein X₁X₂ are selected from the group consisting of GpA and GpT and X₃X₄ are TpT.

②①. (Original) The method of claim 12, wherein X_1X_2 are both purines and X_3X_4 are both pyrimidines.

②②. (Original) The method of claim 12, wherein X_2 is a T and X_3 is a pyrimidine.

②③. (Original) The method of claim 12, wherein the oligonucleotide is 8 to 40 nucleotides in length.

②④. (Original) The method of claim 12, wherein the oligonucleotide is isolated.

②⑤. (Original) The method of claim 12, wherein the oligonucleotide is a synthetic oligonucleotide.

②⑥. (Original) The method of claim 1, wherein the subject is an infant.

②⑦. (Original) The method of claim 1, wherein the antigen is derived from an infectious organism selected from the group consisting of a virus, bacterium, fungus and parasite.

②⑧. (Original) The method of claim 1, wherein the antigen is a tumor antigen.

②⑨. (Original) The method of claim 1, wherein the antigen is an allergen.

②⑩. (Original) The method of claim 1, wherein the antigen is in the form of a crude extract.

②⑪. (Original) The method of claim 1, wherein the antigen is in the form of a purified molecule including a protein or a polysaccharide.

(33) (Original) The method of claim 1, wherein the antigen is in the form of a recombinant molecule including a protein, polypeptide, peptide or peptide mimic of a polysaccharide antigen.

34. (Cancelled)

(35) (Original) The method of claim 1, wherein the non-nucleic acid adjuvant by itself gives a Th1 immune response (e.g., MPL) but when used in combination with the CpG oligonucleotide gives a stronger Th1 response.

36-98. (Cancelled)